

**Figure 1:**

1/1

GGT ACC ACT TCT CTC AAT CCA ACT TTC TAA ACA ATG GCT TCT AAA CCT TTC TTG TCT CTT  
M A S K P F L S L

61/10

CTT TCT TTG TCT TTG CTT TTG TTC ACC TCT ACT AGT TTG GCT GAC CTG TAC TTC ATT TTG  
L S L S L L L F T S T S L A D L Y F I L

121/30

GAC AAA TCA GGA AGT GTG CTG CAC CAC TGG AAT GAA ATC TAT TAC TTT GTG GAA CAG TTG  
D K S G S V L H H W N E I Y Y F V E Q L

181/50

GCT CAC AAA TTC ATC AGC CCA CAG TTG AGA ATG TCC TTT ATT GTT TTC TCC ACC CGA GGA  
A H K F I S P Q L R M S F I V F S T R G

241/70

ACA ACC TTA ATG AAA CTG ACA GAA GAC AGA GAA CAA ATC CGT CAA GGC CTA GAA GAA CTC  
T T L M K L T E D R E Q I R Q G L E E L

301/90

CAG AAA GTT CTG CCA GGA GGA GAC ACT TAC ATG CAT GAA GGA TTT GAA AGG GCC AGT GAG  
Q K V L P G G D T Y M H E G F E R A S E

361/110

CAG ATT TAT TAT GAA AAC AGA CAA GGG TAC AGG ACA GCC AGC GTC ATC ATT GCT TTG ACT  
Q I Y Y E N R Q G Y R T A S V I I A L T

421/130

GAT GGA GAA CTC CAT GAA GAT CTC TTT TTC TAT TCA GAG AGG GAG GCT AAT AGG TCT CGA  
D G E L H E D L F F Y S E R E A N R S R

481/150

GAT CTT GGT GCA ATT GTT TAC TGT GTT GGT GTG AAA GAT TTC AAT GAG ACA CAG CTG GCC  
D L G A I V Y C V G V K D F N E T Q L A

541/170

CGG ATT GCG GAC AGT AAG GAT CAT GTG TTT CCC GTG AAT GAC GGC TTT CAG GCT CTG CAA  
R I A D S K D H V F P V N D G F Q A L Q

601/190

GGC ATC ATC CAC TCA ATT TTG AGC TCT GCT TCC CCA ACC AGC CCT AAG GTC TTC CCT CTC  
G I I H S I L S S A S P T S P K V F P L

661/210

AGC CTT GAC AGC ACC CCT CAA GAT GGT AAT GTT GTC GTT GCT TGC CTT GTC CAG GGT TTC  
S L D S T P Q D G N V V V A C L V Q G F

721/230

TTC CCT CAG GAG CCA CTC TCT GTT ACC TGG TCT GAA TCT GGA CAG AAT GTT ACC GCC AGA  
F P Q E P L S V T W S E S G Q N V T A R

781/250

AAC TTC CCA CCT AGC CAG GAT GCC TCC GGT GAC CTC TAC ACC ACC AGC TCT CAG CTC ACC

N F P P S Q D A S G D L Y T T S S Q L T  
841/270  
CTT CCA GCC ACC CAG TGC CCA GAT GGT AAG TCC GTT ACC TGC CAT GTT AAG CAC TAC ACC  
L P A T Q C P D G K S V T C H V K H Y T  
901/290  
AAC TCC AGC CAG GAT GTT ACT GTT CCA TGC CGT GTT CCA CCA CCT CCA CCA TGC TGC CAC  
N S S Q D V T V P C R V P P P P P C C H  
961/310  
CCA CGT CTC TCT CTT CAC CGT CCT GCC CTT GAG GAC TTG CTC TTG GGT TCT GAA GCT AAC  
P R L S L H R P A L E D L L L G S E A N  
1021/330  
CTC ACC TGC ACC CTC ACC GGT CTC AGA GAT GCC TCT GGT GCC ACC TTC ACC TGG ACC CCA  
L T C T L T G L R D A S G A T F T W T P  
1081/350  
AGC TCT GGT AAG AGC GCT GTT CAA GGA CCA CCT GAG CGT GAC CTC TGT GGA TGC TAC TCT  
S S G K S A V Q G P P E R D L C G C Y S  
1141/370  
GTT AGC TCT GTT CTT CCT GGT TGT GCC CAG CCT TGG AAC CAC GGT GAG ACC TTC ACC TGC  
V S S V L P G C A Q P W N H G E T F T C  
1201/390  
ACT GCT GCC CAC CCA GAG TTG AAG ACC CCA CTT ACC GCC AAC ATC ACC AAG TCC GGA AAC  
T A A H P E L K T P L T A N I T K S G N  
1261/410  
ACC TTC CGT CCC GAG GTC CAC CTC TTG CCA CCA CCA TCT GAG GAG CTT GCC CTC AAT GAG  
T F R P E V H L L P P P S E E L A L N E  
1321/430  
CTT GTT ACC CTC ACC TGC CTT GCT CGT GGA TTC AGC CCA AAG GAT GTT CTT GTT AGG TGG  
L V T L T C L A R G F S P K D V L V R W  
1381/450  
CTT CAG GGA TCT CAG GAG CTT CCA CGT GAG AAG TAC CTC ACT TGG GCT TCC CGT CAG GAG  
L Q G S Q E L P R E K Y L T W A S R Q E  
1441/470  
CCA AGC CAG GGA ACT ACC ACC TAC GCT GTT ACC AGC ATC CTT CGT GTT GCT GCT GAG GAC  
P S Q G T T T Y A V T S I L R V A A E D  
1501/490  
TGG AAG AAG GGT GAG ACC TTC TCC TGC ATG GTT GGT CAC GAG GCC CTT CCA CTT GCC TTC  
W K K G E T F S C M V G H E A L P L A F  
1561/510  
ACC CAG AAG ACC ATT GAT CGT TTG GCT GGA AAG CCA ACC CAC ATC AAT GTT TCT GTT GTC  
T Q K T I D R L A G K P T H I N V S V V  
1621/530  
1650/538  
ATG GCT GAG GCT GAT GGA ACC TGC TAC TAA

**Figure 2. pGPTV-kan-ocs-ATR-IgA2:**

Bgl II

1 CTGGCCGGCGCCAGATCTGGGGAACCTGTGGTTGGCATGCACATACAAATGGACGAACGGATAAACCTTTTCACGCCCTT  
81 TTAAATATCCGATTATTCTAATAAACGCTCTTTTCTCTTAGGTTTACCCGCCAATATATCCTGTCAAACACTGATAGTTT  
161 AAACCTGAAGGCGGGAAACGACAATCTGATCATGAGCGGAGAATTAAGGGAGTCACGTTATGACCCCGCCGATGACGCGGG

EcoR I

241 ACAAGCCGTTTACGTTTGGAACTGACAGAACCGCAACGTTGAAGGAGCCACTCAGCCGATCTGAATTCAGTCTTTAAT  
321 GAGATATGCGAGACGCCTATGATCGCATGATATTTGCTTTCAATTCTGTTGTGCACGTTGTAAAAAACCTGAGCATGTGT  
401 AGCTCAGATCCTTACCGCCGGTTTCGGTTTATTCTAATGAATATATCACCCGTTACTATCGTATTTTATGAATAATATT  
481 CTCCGTTCAATTTACTGATTGTACCCTACTACTTATATGTACAATATTAATAATGAAAACAATATATTGTGCTGAATAGGT

Sac I Asc I

100454001

561 TTATAGCGACATCTATGATAGAGCGCCACAATAACAAACAATTGCGTTTATTATTACAAATCCAATTTTGAGCTCGGCG  
641 CGCCAGCTGGACATCATGTTGGATATGAAACAACCTATTATTTATCTACATGTTTATAGATGTTATCTGATTATTTTATAC  
721 GTAGTCTTCTATTGATGAGGAGTCTAAGGCTATAGAATTATATATCTAAATGATTAATATATATATTATTAATAATTAAC  
801 AATAATTAATATATTATAATTTATATATATATATTTTATATTATTATAATAATATTCTTACAAATATAATTATTATATTC  
881 GACGGTATCGGGGCAATTGTATTTCGACGGTATCGCGATAAGCTCGCGGATCCCTGAAAGCGACGTTGGATGTTAACATCT  
961 ACAAATTGCCTTTTCTTATCGACCATGTACGTAAGCGCTTACGTTTGTGGTGACCCCTTGAGGAACTGGTAGCTGTTGT  
1041 GGGCCTGTGGTCTCAAGATGGATCATTAATTTCCACCTTCACCTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTA  
1121 CGGCTAAGAGCGAATTTGGCCTGTAGGATCCCTGAAAGCGACGTTGGATGTTAACATCTACAAATTGCCTTTTCTTATCG  
1201 ACCATGTACGTAAGCGCTTACGTTTGTGGTGACCCCTTGAGGAACTGGTAGCTGTTGTGGGCCTGTGGTCTCAAGATGG  
1281 ATCATTAAATTTCCACCTTCACCTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTACGGCTAAGAGCGAATTTGGCC  
1361 TGTAGGATCCCTGAAAGCGACGTTGGATGTTAACATCTACAAATTGCCTTTTCTTATCGACCATGTACGTAAGCGCTTAC  
1441 GTTTTTGGTGACCCCTTGAGGAACTGGTAGCTGTTGTGGGCCTGTGGTCTCAAGATGGATCATTAATTTCCACCTTCAC  
1521 CTACGATGGGGGGCATCGCACCGGTGAGTAATATTGTACGGCTAAGAGCGAATTTGGCCTGTAGGATCCGCGAGCTGGTC  
1601 AATCCCATTGCTTTTGAAGCAGCTCAACATTGATCTCTTTCTCGATCGAGGGAGATTTTCAAATCAGTGCGCAAGACGT  
1681 GACGTAAGTATCCGAGTCAGTTTTTATTTTCTACTAATTTGGTCGTTTATTTTCGGCGTGTAGGACATGGCAACCGGGCC  
1761 TGAATTTTCGCGGGTATTCTGTTTCTATTCCAACCTTTTCTTGATCCGCAGCCATTAAACGACTTTTGAATAGATACGCTGA  
1841 CACGCCAAGCCTCGCTAGTCAAAAGGTACCAAACAACGCTTTACAGCAAGAACGGAATGCGCGTGACGCTCGCGGTGAC  
1921 GCCATTTTCGCCTTTTCAGAAATGGATAAATAGCCTTGCTTCTTATTATATCTTCCCTTAATTAAGGTACCACTTCTCTCA  
2001 ATCCAACCTTTCTAAACAATGGCTTCTAAACCTTTCTTGTCTCTTCTTTCTTTGTCTTTGCTTTTGTTCACCTCTACTAGT  
2081 TTGGCTGACCTGTACTTCATTTTGGACAAATCAGGAAGTGTGCTGCACCACTGGAATGAAATCTATTACTTTGTGGAACA  
2161 GTTGGCTCACAAATTCATCAGCCACAGTTGAGAATGTCCTTTATTGTTTTCTCCACCCGAGGAACAACCTTAATGAAAC  
2241 TGACAGAAGACAGAGAACAAATCCGTCAAGGCCTAGAAGAACTCCAGAAAGTTCTGCCAGGAGGAGACACTTACATGCAT  
2321 GAAGGATTTGAAAGGGCCAGTGAGCAGATTTATTATGAAAACAGACAAGGGTACAGGACAGCCAGCGTCATATTGCTTT  
2401 GACTGATGGAGAACTCCATGAAGATCTCTTTTCTATTTCAGAGAGGGAGGCTAATAGGTCTCGAGATCTTGGTGCAATTG  
2481 TTTACTGTGTTGGTGTGAAAGATTTCAATGAGACACAGCTGGCCCGGATTGCGGACAGTAAGGATCATGTGTTTCCCGTG  
2561 AATGACGGCTTTCAGGCTCTGCAAGGCATCATCCACTCAATTTTGAGCTCTGCTTCCCAACCCAGCCCTAAGGTCTTCCC  
2641 TCTCAGCCTTGACAGCACCCCTCAAGATGGTAATGTTGTCGTTGCTTGCCTTGTCCAGGGTTTCTTCCCTCAGGAGCCAC

2721 TCTCTGTTACCTGGTCTGAATCTGGACAGAATGTTACCGCCAGAACTTCCCACCTAGCCAGGATGCCTCCGGTGACCTC  
2801 TACACCACCAGCTCTCAGCTCACCCCTTCCAGCCACCCAGTGCCAGATGGTAAGTCCGTTACCTGCCATGTTAAGCACTA  
2881 CACCAACTCCAGCCAGGATGTTACTGTTCCATGCCGTGTTCCACCACCTCCACCATGCTGCCACCCACGTCTCTCTCTTC  
2961 ACCGTCCTGCCCTTGAGGACTTGCTCTTGGGTTCTGAAGCTAACCTCACCTGCACCCCTACCGGTCTCAGAGATGCCTCT  
3041 GGTGCCACCTTACCTGGACCCCAAGCTCTGGTAAGAGCGCTGTTCAAGGACCACCTGAGCGTGACCTCTGTGGATGCTA  
3121 CTCTGTTAGCTCTGTTCTTCTGCTGGTTGTGCCCAGCCTTGAACACACGGTGAGACCTTCACCTGCACTGCTGCCCCACCCAG  
3201 AGTTGAAGACCCCACTTACCGCCAACATCACCAAGTCCGGAAACACCTTCCGTCCCGAGGTCCACCTCTTGCCACCACCA  
3281 TCTGAGGAGCTTGCCCTCAATGAGCTTGTTACCCTCACCTGCCTTGCTCGTGGATTACAGCCAAAGGATGTTCTTGTTAG  
3361 GTGGCTTCAGGGATCTCAGGAGCTTCCACGTGAGAAGTACCTCACCTTGGGCTTCCCGTCAGGAGCCAAGCCAGGGAATA  
3441 CCACCTACGCTGTTACCAGCATCCTTCGTGTTGCTGCTGAGGACTGGAAGAAGGGTGAGACCTTCTCCTGCATGGTTGGT  
3521 CACGAGGCCCTTCCACTTGCCTTACCCAGAAGACCATTGATCGTTTGGCTGGAAAGCCAACCCACATCAATGTTTCTGT  
3601 TGTCATGGCTGAGGCTGATGGAACCTGCTACTAAGATCTGTGAATTCCTGCAGCCCGGGGGATCCACTAGTTCTAGCTAG  
3681 AGCGGCCGCCACCGCGGTGGCGAATTAACAGAGGTGGATGGACAGACCCGTTCTTACACCGGACTGGGCGCGGGATAGGA  
3761 TATTCAGATTGGGATGGGATTGAGCTTAAAGCCGGCGCTGAGACCATGCTCAAGGTAGGCAATGTCTCAGCGTCGAGCC  
3841 CGGCATCTATGTCGAGGGCATTGGTGGAGCGCGCTTCGGGGATACCGTGCTTGTAAGTACGACCGGATATGAGGCCCTCA  
3921 CTCCGCTTGATCTTGGCAAAGATATTTGACGCATTTATTAGTATGTGTTAATTTTCATTTGCAGTGCAAGTATTTTCTATT  
4001 CGATCTTTATGTAATTCGTTACAATTAATAAATATTCAAATCAGATTATTGACTGTCATTTGTATCAAATCGTGTTTAA  
4081 GGATATTTTTATTATAATATTGATGATAATTCACCTGGCCGTCGTTTACAACGTGCTGACTGGGAAAACCTGGCGTTAC  
4161 CCAACTTAATCGCCTTGCAGCACATCCCCCTTTCCGCGAGCTGGCGCGCCAAGCTTCACGCTGCCGCAAGCACTCAGGGCG  
4241 CAAGGGCTGCTAAAGGAAGCGGAACACGTAGAAAGCCAGTCCGAGAAACGGTGCTGACCCCGGATGAATGTCAGCTACT  
4321 GGCTATCTGGACAAGGGAAAACGCAAGCGCAAAGAGAAAAGCAGGTAGCTTGCAGTGGGCTTACATGGCGATAGCTAGACT  
4401 GGGCGGTTTTATGGACAGCAAGCGAACCAGGAAATGCCAGCTGGGGCGCCCTCTGGTAAGGTTGGGAAGCCCTGCAAAGTA  
4481 AACTGGATGGCTTTCTTGCCGCAAGGATCTGATGGCGCAGGGGATCAAGATCATGAGCGGAGAATTAAGGGAGTCACGT  
4561 TATGACCCCGCCGATGACGCGGACAAGCCGTTTACGTTTGGAACTGACAGAACCAGCAACGTTGAAGGAGCCACTCAG  
4641 CCGCGGGTTTTCTGGAGTTTAAATGAGCTAAGCACATACGTGAGAAACCATATTGCGCGTTCAAAGTCGCCTAAGGTCAC  
4721 TATCAGCTAGCAAATATTTCTTGTCAAAAATGCTCCACTGACGTTCCATAAATTCCCCTCGGTATCCAATTAGAGTCTCA  
4801 TATTCACCTCTCAATCCAGATCTGGATCGTTTCGCATGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGG  
4881 TGGAGAGGCTATTCCGCTATGACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAG  
4961 GGGCGCCCGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAGGACGAGGCAGCGCGGCTATCGTG  
5041 GCTGGCCACGACGGGCGTTTCCTTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGAAGGGACTGGCTGCTATTGGGCG  
5121 AAGTGCCGGGGCAGGATCTCCTGTCATCTCACCTTGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGG  
5201 CTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGA  
5281 AGCCGGTCTTGTCGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACGTTCGCCAGGCTCAAGG  
5361 CGCGCATGCCCGACGGCGATGATCTCGTCGTGACCCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGC  
5441 TTTTCTGGATTATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGC  
5521 TGAAGAGCTTGGCGGCAATGGGCTGACCGCTTCTCTGCTGCTTTACGGTATCGCCGCTCCCGATTGCGAGCGCATCGCCT  
5601 TCTATCGCCTTCTTGACGAGTTCTTCTGAGCGGGACTCTGAGGATCCCCGATGAGCTAAGCTAGCTATATCATCAATTT  
5681 ATGTATTACATAATATCGCACTCAGTCTTTCATCTACGGCAATGTACCAGCTGATATAATCAGTTATTGAAATATTTTC

5761 TGAATTTAACTTGCATCAATAAAATTTATGTTTTTGCTTGGACTATAATACCTGACTTGTTATTTTATCAATAAAATATTT  
5841 AAACATATATTTCTTTCAAGATGGGAATTAATTCAGTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTA  
5921 CCCAACTTAATCGCCTTGCAGCACATCCCCCTTTGCGCCAGCTGGCGTAATAGCGAAGAGGCCCCGACCGATCGCCCTTCC  
6001 CAACAGTTGCGCAGCCTGAATGGCGCCCGCTCCTTTGCGTTTTCTTCCCTTCCTTTCTCGCCACGTTGCGCCGGCTTTCCCC  
6081 GTCAAGCTCTAAATCGCGGGCTCCCTTTAGGGTTCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAACTTGATTTG  
6161 GGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAG  
6241 TGGACTCTTGTTCCAAACTGGAACAACACTCAACCCTATCTCGGGCTATTCTTTTGATTTATAAGGGATTTTGCCGATTT  
6321 CGGAACCACCATCAAACAGGATTTTCGCCTGCTGGGGCAAACCAGCGTGGACCGCTTGCTGCAACTCTCTCAGGGCCAGG  
6401 CGGTGAAGGGCAATCAGCTGTTGCCCCGTCTCACTGGTGAAAAGAAAAACCACCCAGTACATTAAAAACGTCCGCAATGT  
6481 GTTATTAAGTTGTCTAAGCGTCAATTTGTTTACACCACAATATATCCTGCCACCAGCCAGCCAACAGCTCCCCGACCGGC  
6561 AGCTCGGCACAAAATCACCCTCGATACAGGCAGCCCATCAG

109231 2452400

**Figure 3. pGPTV-hpt-ocs-35SJ/SC**

1 CTGATGGGCTGCCTGTATCGAGTGGTGATTTTGTGCCGAGCTGCCGGTCGGGGAGCTGTTGGCTGGCTGGTGGCAGGATA  
81 TATTGTGGTGTAACAAATTGACGCTTAGACAACCTAATAACACATTGCGGACGTTTTTAATGTACTGGGGTGGTTTTTC  
161 TTTTCACCAAGTGAGACGGGCAACAGCTGATTGCCCTTACCGCCTGGCCCTGAGAGAGTTGCAGCAAGCGGTCCACGCTG  
241 GTTTGCCCCAGCAGGCGAAAAATCCTGTTTGATGGTGGTTCCGAAATCGGCAAAATCCCTTATAAATCAAAAAGAATAGCCC  
321 GAGATAGGGTTGAGTGTGTTCCAGTTTGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGCGAAA  
401 AACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCAAATCAAGTTTTTTGGGGTGCAGGTGCCGTAAAGCAC  
481 TAAATCGGAACCCTAAAGGGAGCCCCGATTTAGAGCTTGACGGGAAAGCCGGCGAACGTGGCGAGAAAGGAAGGAAG  
561 AAAGCGAAAGGAGCGGGCGCCATTGAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCC  
641 AGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGTTGTAAAACG  
721 ACGGCCAGTGAATTAATTTCCATCTTGAAAGAAATATAGTTTAAATATTTATTGATAAAAATAACAAGTCAGGTATTATAG  
801 TCCAAGCAAAAACATAAATTTATTGATGCAAGTTTAAATTCAGAAATATTTCAATAACTGATTATATCAGCTGGTACATT  
881 GCCGTAGATGAAAGACTGAGTGCATATTATGTGTAATACATAAATTGATGATATAGCTAGCTTAGCTCATCGGGGGATC  
961 CCGGTGCGCATCTACTCTATTCTTTGCCCTCGGACGAGTGCTGGGGCGTCGGTTTTCCACTATCGGCGAGTACTTCTACA  
1041 CAGCCATCGGTCCAGACGGCCGCGCTTCTGCGGGCGATTTGTGTACGCCCGACAGTCCCGGCTCCGGATCGGACGATTGC  
1121 GTCGCATCGACCCTGCGCCCAAGCTGCATCATCGAAATTGCCGTCAACCAAGCTCTGATAGAGTTGGTCAAGACCAATGC  
1201 GGAGCATATACGCCCCGAGCCGCGCGATCCTGCAAGCTCCGGATGCCTCCGCTCGAAGTAGCGCGTCTGCTGCTCCATA  
1281 CAAGCCAACCACGGCCTCCAGAAGAAGATGTTGGCGACCTCGTATTGGGAATCCCCGAACATCGCCTCGCTCCAGTCAAT  
1361 GACCGCTGTTATGCGGCCATTGTCCGTGAGGACATTGTTGGAGCCGAAATCCGCGTGACGAGGTGCCGGACTTCGGGGC  
1441 AGTCCTCGGCCCAAAGCATCAGCTCATCGAGAGCCTGCGCGACGGACGCACTGACGGTGTGCTCCATCACAGTTTGCCAG  
1521 TGATACACATGGGGATCAGCAATCGCGCATATGAAATCACGCCATGTAGTGTATTGACCGATTCTTGCGGTCCGAATGG  
1601 GCCGAACCCGCTCGTCTGGCTAAGATCGGCCGAGCGATCGCATCCATGGCCTCCGCGACCGGCTGCAGAACAGCGGGCA  
1681 GTTCGGTTTCAGGCAGGTCTTGCAACGTGACACCCTGTGCACGGCGGGAGATGCAATAGGTGAGGCTCTCGTGAATGCC  
1761 CCAATGTCAAGCACTTCCGGAATCGGGAGCGCGCCGATGCAAAGTGCCGATAAACATAACGATCTTTGTAGAAACCATC  
1841 GGCGCAGCTATTTACCCGCAGGACATATCCACGCCCTCCTACATCGAAGCTGAAAGCACGAGATTCTTCGCCCTCCGAGA  
1921 GCTGCATCAGGTGCGAGACGCTGTGCAACTTTTCGATCAGAACTTCTCGACAGACGTGCGGGTGAAGTTCAGGCTTTTTTC  
2001 ATATCTTATTGCCCCCTAGAGTCGAGATCTGGATTGAGAGTGAATATGAGACTCTAATTGGATACCGAGGGGAATTTAT  
2081 GGAACGTGAGTGGAGCATTTTTTGACAAGAAATATTTGCTAGCTGATAGTGACCTTAGGCGACTTTTGAACGCGCAATAAT  
2161 GGTCTTGACGTATGTGCTTAGCTCATTAAGTCCAGAAACCCGCGGCTGAGTGGCTCCTTCAACGTTGCGGTCTGTCA  
2241 GTTCAAACGTAAAACGGCTTGTCCCGGTCATCGGCGGGGGTCATAACGTGACTCCCTTAATTCTCCGCTCATGATCTT  
2321 GATCCCCTGCGCCATCAGATCCTTGGCGGCAAGAAAGCCATCCAGTTTACTTTGCAGGGCTTCCCAACCTTACCAGAGGG  
2401 CGCCCCAGCTGGCAATTCCGGTTCGCTTGCTGTCCATAAAACCGCCAGTCTAGCTATCGCCATGTAAGCCCACTGCAAG  
2481 CTACCTGCTTTCTCTTTGCGCTTGCGTTTTCCCTTGTCCAGATAGCCAGTAGCTGACATTCATCCGGGGTCAGCACCGTT  
2561 TCTGCGGACTGGCTTTCTACGTGTTCCGCTTCCCTTAGCAGCCCTGCGCCCTGAGTGCCTGCGGCAGCGTGAAGCTTGG  
2641 CGCGCCAGCTGGACATCATGTTGGATATGAAACAACCTATTATTTATCTACATGTTTTAGATGTTATCTGATTATTTTAT  
2721 ACGTAGTCTTCTATTGATGAGGAGTCTAAGGCTATAGAATTATATATCTAAATGATTAATATATATATTATTAATAATTA  
2801 ACAATAATTAATATATTATAATTTATATATATATATTTTATATTATTATAATAATATTCTTACAAATATAATTATTATAT

2881 TCGACGGTATCGGGGCAATTGATTCCCGATCCTATCTGTCACTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCACCTA  
2961 CAAATGCCATCATTGCGATAAAGGAAAGGCTATCATTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACCCCCAC  
3041 CCACGAGGAGCATCGTGGAAAAAGAAGACGTTCCAACCACGTCTTCAAAGCAAGTGGATTGATGTGATATCTCCACTGAC  
3121 GTAAGGGATGACGCACAATCCCCTATCCTTCGCAAGACCCCTTCCTCTATATAAGGAAGTTCATTTTCAATTTGGAGAGGAC  
3201 ACGCTGAAATCACCAGTCTCTCTCTACAAGGTACCATGGTGTCTTTCGTGTCTCACCTGCCTGCTGGCGGTCTTCCCAGCC  
3281 ATCTCCACGAAGAGTCCCATATTTGGTCCCAGGAGGTGAATAGTGTGGAAGGTAACCTCAGTGTCCATCACGTGCTACTA  
3361 CCCACCCACCTCTGTCAACCGGCACACCCGGAAGTACTGGTGCCGGCAGGGAGCTAGAGGTGGCTGCATAACCCCTCATCT  
3441 CCTCGGAGGGCTACGTCTCCAGCAAATATGCAGGCAGGGCTAACCTCACCAACTTCCCGGAGAACGGCACATTTGTGGTG  
3521 AACATTGCCCAGCTGAGCCAGGATGACTCCGGGCGCTACAAGTGTGGCCTGGGCATCAATAGCCGAGGCCTGTCTTTGA  
3601 TGTCAGCCTGGAGGTGAGCCAGGGTCCTGGGCTCCTAAATGACACTAAAGTCTACACAGTGGACCTGGGCAGAACGGTGA  
3681 CCATCAACTGCCCTTTCAAGACTGAGAATGCTCAAAAGAGGAAGTCTTGTACAAGCAGATAGGCCTGTACCCTGTGCTG  
3761 GTCATCGACTCCAGTGGTTATGTGAATCCCAACTATACAGGAAGAATACGCCTTGATATTCAGGGTACTGGCCAGTTACT  
3841 GTTCAGCGTTGTCTATCAACCAACTCAGGCTCAGCGATGCTGGGCAGTATCTCTGCCAGGCTGGGGATGATTCCAATAGTA  
3921 ATAAGAAGAATGCTGACCTCCAAGTGCTAAAGCCCGAGCCCGAGCTGGTTTATGAAGACCTGAGGGGCTCAGTGACCTTC  
4001 CACTGTGCCCTGGGCCCTGAGGTGGCAAACGTGGCCAAATTTCTGTGCCGACAGAGCAGTGGGGAAAACCTGTGACGTGGT  
4081 CGTCAACACCCTGGGGAAGAGGGCCCCAGCCTTTGAGGGCAGGATCCTGCTCAACCCCCAGGACAAGGATGGCTCATTCA  
4161 GTGTGGTGATCACAGGCCTGAGGAAGGAGGATGCAGGGCGCTACCTGTGTGGAGCCCATTTCGGATGGTGCAGCTGCAGGAA  
4241 GGCTCGCCTATCCAGGCCTGGCAACTCTTCGTCAATGAGGAGTCCACGATTCCCCGAGCCCCACTGTGGTGAAGGGGGT  
4321 GGCAGGAAGCTCTGTGGCCGTGCTCTGCCCTTACAACCGTAAGGAAAGCAAAAGCATCAAGTACTGGTGTCTCTGGGAAG  
4401 GGGCCCAGAATGGCCGCTGCCCCCTGCTGGTGGACAGCGAGGGGTGGGTTAAGGCCAGTACGAGGGCCGCCTCTCCCTG  
4481 CTGGAGGAGCCAGGCAACGGCACCTTCACTGTCTATCCTCAACCAGCTCACCCAGCCGGGACGCCGGCTTCTACTGGTGTCT  
4561 GACCAACGGCGATACTCTCTGGAGGACCACCGTGGAGATCAAGATTATCGAAGGAGAACCACCTCAAGGTTCCCGGGA  
4641 ATGTACGGCTGTGCTGGGAGAGACTCTCAAGTCCCCTGTCACTTTCCATGCAAATTCTCCTCGTACGAGAAATACTGG  
4721 TGCAAGTGGAATAACACGGGCTGCCAGGCCCTGCCAGCCAAGACGAAGGCCCCAGCAAGGCCTTCGTGAACGTGACGA  
4801 GAACAGCCGGCTTGTCTCCCTGACCCTGAACCTGGTGACCAGGGCTGATGAGGGCTGGTACTGGTGTGGAGTGAAGCAGG  
4881 GCCACTTCTATGGAGAGACTGCAGCCGTCTATGTGGCAGTTGAAGAGAGGAAGGCAGCGGGGTCCCGCGATGTCAGCCTA  
4961 GCGAAGGCAGACGCTGCTCCTGATGAGAAGGTGCTAGACTCTGGTTTTTCGGGAGATTGAGAACAAAGCCATTCAAGATCC  
5041 CAGGCTTTTTTGACAGAGTGAATTCGTTTCGTATCATCGGTTTTCGACAACGTTTCGTCAAGTTCAATGCATCAGTTTCATTGCG  
5121 CACACACCAGAATCCTACTGAGTTCGAGTATTATGGCATTGGGAAAACCTGTTTTTCTTGTACCATTGTTGTGCTTGTAA  
5201 TTTACTGTGTTTTTTTATTCGGTTTTTCGCTATCGAACTGTGAAATGGAAATGGATGGAGAAGAGTTAATGAATGATATGGT  
5281 CCTTTTGTTCATTCTCAAATTAATATTATTTGTTTTTCTCTTATTTGTTGTGTGTTGAATTTGAAATTATAAGAGATAT  
5361 GCAAACATTTTGTTTTGTAGTAAAAATGTGTCAAATCGTGGCCTCTAATGACCGAAGTTAATATGAGGAGTAAACACTTG  
5441 TAGTTGTCGACGGTATCGATATTAATTCGGATCCTATCTGTCACTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCAC  
5521 CTACAAATGCCATCATTGCGATAAAGGAAAGGCTATCATTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACCCC  
5601 CACCCACGAGGAGCATCGTGGAAAAAGAAGACGTTCCAACCACGTCTTCAAAGCAAGTGGATTGATGTGATATCTCCACT  
5681 GACGTAAGGGATGACGCACAATCCCACTATCCTTCGCAAGACCCCTTCCTCTATATAAGGAAGTTCAATTCATTTGGAGAG  
5761 GACACGCTGAAATCACCAGTCTCTCTCTAGAGTACCATGGAGAACCATTTGCTTTTCTGGGGAGTCTTGGCGGTTTTTAT  
5841 TAAGGCTGTTTCATGTGAAAGCCCAAGAAGATGAAAGGATTGTTCTTGTGACAACAAATGTAAGTGTGCCCGGATTACTT

5921 CCAGGATCATCCGTTCTTCCGAAGATCCTAATGAGGACATTGTGGAGAGAAACATCCGAATTATTGTTCCCTCTGAACAAC  
6001 AGGGAGAATATCTCTGATCCCACCTCACCATTGAGAACCAGATTTGTGTACCATTTGTCTGACCTCTGTAAAAAATGTGA  
6081 TCCTACAGAAGTGGAGCTGGATAATCAGATAGTTACTGCTACCCAGAGCAATATCTGTGATGAAGACAGTGCTACAGAGA  
6161 CCTGCTACACTTATGACAGAAACAAGTGCTACACAGCTGTGGTCCCACTCGTATATGGTGGTGAGACCAAAATGGTGGA  
6241 ACAGCCTTAACCCAGATGCCTGCTATCCTGACTGAATCCGCGGCGATGAGCTAAGCTAGCTATATCATCAATTTATGTA  
6321 TTACACATAATATCGCACTCAGTCTTTCATCTACGGCAATGTACCAGCTGATATAATCAGTTATTGAAATATTTCTGAAT  
6401 TTAAACTTGCATCAATAAAATTTATGTTTTTGCTTGGAATAATAACCTGACTTGTATTATTTATCAATAAATATTTAACT  
6481 ATATTTCTTTCAAGAGCTCAAAATTGGATTTGTAATAATAAACGCAATTGTTTGTATTGTGGCGCTCTATCATAGATG  
6561 TCGCTATAAACCTATTTCAGCACAATATATTGTTTTTCAATTTAATATTGTACATATAAGTAGTAGGGTACAATCAGTAAAT  
6641 TGAACGGAGAATATTATTCTATAAAAAATACGATAGTAACGGGTGATATATTTCATTAGAATGAACCGAAACCGGCGGTAAGG  
6721 ATCTGAGCTACACATGCTCAGGTTTTTTTACAACGTGCACAACAGAATTGAAAGCAAATATCATGCGATCATAGGCGTCTC  
6801 GCATATCTCATTAAAGCAGTGAATTCAGATCGGCTGAGTGGCTCCTTCAACGTTGCGGTTCTGTGAGTTCCAAACGTAAA  
6881 ACGGCTTGTCCTCGCTCATCGGCGGGGTATAACGTGACTCCCTTAATTCTCCGCTCATGATCAGATTGTGCTTTCCCGC  
6961 CTTAGTTTAAACTATCAGTGTTTGACAGGATATATTGGCGGGTAAACCTAAGAGAAAAGAGCGTTTATTAGAATAATCG  
7041 GATATTTAAAAGGGCGTGAAAAGGTTTATCCGTTCTGTCATGTTTGTATGTGCATGCCAACACAGGTTCCCCAGATCTGGC  
7121 GCCGGCCAG

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